

AMENDMENTS

In the Drawings:

Figure 2 of the present application is amended per the corrected drawing submitted herewith.

In The Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-3 (canceled).

Claim 4 (currently amended) A signal processing system comprising:

means for receiving an incoming radio frequency signal;

means for narrowing the received incoming signal to a limited frequency band;

means for amplifying the narrowed incoming signal;

means for rejecting an image of the narrowed incoming signal to output an input signal;

means for distributing the input signal to one of two or more channels;

means disposed in each of said channels for processing the distributed signal and providing an output signal in response thereto, wherein only one of said processing means is active at a time; and

means for combining the signals output by two or more said processing means,

wherein said ~~mixing circuit~~ distribution means further includes means for providing automatic gain control for each of said channels.

Claim 5 (original) The invention of Claim 4 wherein said means for providing automatic gain control operates in a current mode.

Claim 6 (previously presented) The invention of Claim 4 wherein said means for providing automatic gain control includes a digital automatic gain control circuit.

Claim 7 (previously presented) A signal processing system comprising:
means for receiving an incoming radio frequency signal;
means for narrowing the received incoming signal to a limited frequency band;
means for amplifying the narrowed incoming signal;
means for rejecting an image of the narrowed incoming signal to output an input signal;
means for distributing the input signal to one of two or more channels;
means disposed in each of said channels for processing the distributed signal and providing an output signal in response thereto, wherein only one of said processing means is active at a time; and
means for combining the signals output by two or more said processing means,
wherein said distribution means includes a mixing circuit, and
wherein said mixing circuit further includes means for selectively providing differential digital automatic gain control signals in response to a channel select signal.

Claims 8-10 (canceled)

Claim 11 (previously presented) A signal processing system comprising:

means for receiving an incoming radio frequency signal;

means for narrowing the received incoming signal to a limited frequency band;

means for amplifying the narrowed incoming signal;

means for rejecting an image of the narrowed incoming signal to output an input signal;

means for distributing the input signal to one of two or more channels;

means disposed in each of said channels for processing the distributed signal and providing an output signal in response thereto, wherein only one of said processing means is active at a time; and

means for combining the signals output by two or more said processing means,

wherein said distribution means includes a mixing circuit, and

wherein said mixing circuit includes at least one Gilbert cell.

Claim 12 (previously presented) A signal processing system comprising:

means for receiving an incoming radio frequency signal;

means for narrowing the received incoming signal to a limited frequency band;

means for amplifying the narrowed incoming signal;

means for rejecting an image of the narrowed incoming signal to output an input signal;

means for distributing the input signal to one of two or more channels;

means disposed in each of said channels for processing the distributed signal and providing an output signal in response thereto, wherein only one of said processing means is active at a time; and

means for combining the signals output by two or more said processing means,

wherein said distribution means includes a mixing circuit, and

wherein said mixing circuit includes a transconductance amplifier.

Claim 13 (original) The invention of Claim 12 wherein said mixing circuit includes an automatic gain control circuit.

Claim 14 (canceled).

Claim 15 (previously presented) A receiver comprising:

a radio frequency stage for downconverting a received signal and providing said input signal in response thereto;

a distributor for distributing said input signal to one of two or more channels, said distributor including a mixing circuit having:

a Gilbert cell for each channel,

an automatic gain control circuit for each channel in communication with a respective one of said Gilbert cells, and

a transconductance amplifier in communication with said automatic gain control circuits;

a filter disposed in each of said channel for processing said distributed signals and outputting the processed signals; and

a combining circuit for combining the signals output by said processing means.

Claim 16 (canceled)

Claim 17 (currently amended) A signal processing circuit comprising:

a receiver for receiving an incoming signal;

a pre select filter connected to the receiver for filtering the received incoming signal;

a low noise amplifier connected to the pre select filter for amplifying the filtered incoming signal;

an image rejection filter connected to the low noise amplifier for rejecting predetermined images of the amplified incoming signal to thereby output an incoming signal;

a distributor connected to the image rejection filter for distributing the input signal to one of at least two channels in a current mode of operation, wherein each of said at least two channels include a Gilbert cell;

an intermediate-frequency filter disposed in each of said two channels for processing said input signal and providing an output signal in response thereto, wherein only one of said intermediate-frequency filters is active at a time; and

a ~~demultiplexer~~ multiplexer connected to the outputs of each intermediate-frequency filter for combining the signals output by each of said intermediate-frequency filter.

Claim 18 (previously presented) A receiver comprising:

a radio frequency stage for downconverting a received signal and providing said input signal in response thereto;

a distributor for distributing said input signal to one of at least two channels in a current mode of operation, said distributor including a mixing circuit having:

a Gilbert cell for each channel,

an automatic gain control circuit for each channel operatively coupled with a respective one of said Gilbert cells, and

a transconductance amplifier operatively coupled with said automatic gain control circuits;
and

a filters disposed in each of said channels for processing said input signal and providing an output signal in response thereto.

Claim 19-21 (canceled)